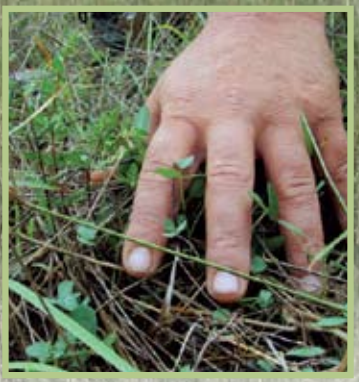
Getting back to nature

Photos: Catriona Nicholls



Taking it in: *Matt Carter and son Lachlan surrounded by productive perennial pastures. (inset)* **On the ground:** *Since adopting rotational grazing species native legume species have started to return.*

Driven by a goal of working with nature, not against it, *EverGraze*® Supporting Site grazier Matt Carter shared his success with native perennial pasture with Kondinin Group's Catriona Nicholls.

Farm information

Farmers
Matt and Melanie Carter

Location
Gunnedah, NSW

Property size
2700 hectares

Mean annual rainfall
610 milimetres

Soil
Clay and clay loam in the hills

Enterprise
Cattle; Merino and first-cross lambs

At a glance

- Rotational grazing has seen a return to productive native perennial pastures.
- Sufficient rest allows native grasses, herbs and legume to flourish and regenerate.
- Management is reducing the need for costly fertiliser and chemical inputs.

"The property has been in our family for four generations and we've always been graziers and always had perennials," Matt explained.

"That is not to say things haven't changed significantly as the farm has passed from father to son over the generations.

Since taking over the management of my part of the business, we moved from a set stocking system into one of rotational grazing and I believe we are now seeing the return of native grasses that must have been abundant during my grandfather's time.

Traditional grazing management of set stocking held on well up until the 1980s, when it all started falling apart.

We were heading towards dominance of unpalatable perennial grasses, such as wire grass and slender bamboo in conjunction with broadleaf weeds — mainly saffron thistles.

I can remember school holidays in the 90s, where I slashed tracks through the thistles so stock could get to water.

Production was falling apart pretty rapidly.

Instigating change

After attending ag college in the mid 90s my brother Steve, father Chris, and I wanted to make the grass country more productive.

So we decided to sow grazing oats as a clean-up crop and then look at improved pastures, subtropicals and temperates.

But what we found after one year of oats, was that during summer we had all these native perennials such as blue grass, plains and red grass, danthonia (wallaby grass) and silky brown top — and the stock loved them.

I think the oats actually sweetened the soil, busted the hard pan and the fact that we have given the paddocks a rest has made all the difference.

With these unexpected results, within two years we all agreed we had to change our management towards a strategic rotational grazing system.

The use of native grasses and the change in species wasn't part of the original plan — it came about by accident.

We were supposed to go two years of oats, kill the crop and invest in improved pastures.

Some paddocks went to subtropical and temperate pastures, but in the meantime ones we couldn't get to were returning to productive natives on their own.

Working with nature

It was during the next three years we realised we were spending hundreds and thousands of dollars on trying to grow grasses that didn't really want to be here. So we turned our attention toward nurturing the native species.

And we've found that our production just keeps increasing with our native pastures.

I would say carrying capacity, groundcover and soil health is continually improving at a time when input costs are escalating.

I'm happy to have an extremely low-maintenance, productive pasture system.

We're not putting anything on our pastures, but our production and carrying capacity continues to increase.

At this point I'm happy to do without fertiliser — I've still got so much I can

improve with water and wire, which is so much cheaper than annual topdressing.

Key to success is management

These native grasses thrive on our rotational grazing management.

It all boils down to rest — I assess the paddock for feed and how long the mob should stay there.

Our average paddock within our *EverGraze* trial is 18ha. It varies between 14–30ha, but other paddocks are still 150ha.

"I'd like to keep going until every paddock is less than 20–32ha (larger on the hard hills).

I'm scoring each paddock against it's own merit and the mob stays there for the amount of time the paddock needs — this can vary between four and 30 days depending on paddock size and feed availability.

I aim for 90 days rest to allow a flourish of native legume and herbs to come back into the system.

So little is known about this component of the native pasture that the experts can't yet tell us about the native legumes and the role they play, but they were once thought not to be there.

Australia as a whole is amazingly forgiving and the fact that in 10 years you can take a property from broadleaf weeds and dust to a functioning and productive ecosystem is a testament to this forgiveness.

We are currently carrying 520 cows to calve, 100 steers and 100 cull heifers.

I am still not certain on which way to best take my enterprise, but I'm thinking selling weaners could be an option in the future. But at the moment I'm taking steers through to 400–440kg.

We basically look for the best market at the time, depending on the season.

Our undulating country is great for heifer calving — last year we had 90 per cent of our cows pregnancy tested and the paddock we subdivided and joined had 99% calving percentage in the Angus cows.

Future developments

I am still doing a paddock a year of direct drilling oats into grass paddocks to finish cattle during winter — the focus is to enhance the native pasture, not kill it.

A University of New England researcher recently found in a given area there was more than 40 species and some of them were winter active.

Biodiversity means better nutrient recycling and the relationship between plants and soil provides a diverse and abundant ecosystem.

Stock can capitalise on this species diversity 365 days a year.

From a family and personal point of view it is much easier to work with nature than to fight it.

Photo: Catriona Nicholls

Nature's nursery: *Matt's undulating country, coupled with perennial pastures, is ideal for his sustaining calving heifers.*

We were spending a lot of money and energy fighting against the system nature wanted us to have — it is really rewarding to work with nature and not against it." FA

This article is courtesy of the Future Farm Industries CRC's Future Farm *magazine.*

CONTACT ▶ **Matt Carter**
0428 433 525
myallsprings@harboursat.com.au

Science behind the story

The adoption of the appropriate grazing management can improve both the quantity and quality of native pastures, particularly if the pasture has been subjected to over-grazing.

Matt Carter's current grazing management will allow him to improve his pastures by increasing the desirable native perennial grass and pasture legume species in the system.

For many producers, the more desirable native perennial grasses have been grazed out while the less desirable, poorer quality grasses have come to dominate. Livestock graze the most palatable grasses first and if pastures are managed so stock are kept in a paddock until the less palatable species are grazed down, the desirable species will have been severely over grazed and will eventually die out.

Matts' comment that he is increasing his carrying capacity without applying fertiliser on his pastures would be due to several factors.

Matt can better utilise all of his pasture now his paddocks are a fraction of their original size. And he actively manages his pasture so it is kept at the optimum combination of quantity and quality for as long as possible.

Carrying capacity is likely to increase as more of the better quality native perennial grasses re-establish themselves.

As groundcover increases, evaporation and run-off will decrease, which means more plant production.

Low input native pasture systems are typically less productive than the high input native pasture systems, which have increased stocking rates and fertiliser applications. It is also recognised that low input native pasture systems usually have greater plant diversity than high input systems. However, for both low and high input native pasture systems it is critical to manage stocking rates accordingly during extended dry periods to reduce the damage to pastures.

Simon is a Project Officer with Namoi Catchment Management Authority (CMA). He manages three EverGraze Support Sites in the Namoi catchment. These sites are part of larger grazing projects funded by Namoi CMA aimed at improving the productivity and sustainability of perennial based livestock systems.